

ABSTRACT

In order to improve a laser amplifying system comprising a plate-like solid-state body which has two oppositely located flat sides and comprises a laser-active medium, a cooling member with a support surface which is arranged so as to face one of the flat sides of the solid-state body and with which this flat side is thermally coupled for the discharge of heat, in such a manner that an optimum coupling takes place it is suggested that the flat side of the solid-state body be coupled mechanically and thermally to the support surface by an adhesive layer which is produced from an adhesive which passes from a liquid state into a solid, cross-linked state essentially invariant in volume and that the adhesive layer have an active adhesive layer area with a heat resistance of less than $10 \text{ K} \times \text{mm}^2/\text{W}$.